The type of material used for burning, I believe, must have a fairly wide range of chemical make up and I use a combination of *Eucalyptus, Leptospermum, Erica, Restio*, and Proteaceae. These all emit a good smell when burning, giving one a smoked fish aroma, and hereby hangs a tail! We have now started using a large fish smoker which can take four full size seed trays—this is an excellent method of quick smoking any amount of seed. The herbage is loaded into the bottom of the smoker and a fire set outside on the ground, this can be ordinary firewood or a gas flame. This vapourises the material, giving a good strong smoke without much heat. The trays get a 30-min treatment which seems adequate for all species.

Record Keeping, An Aid To Quality

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INTRODUCTION

What is the meaning of **Quality**? the *Collins Dictionary* defines it as—"the basic character or nature of something" and the *Oxford Dictionary* defines it as—"A degree or level of excellence".

Why do we strive for quality?: "job satisfaction" (pride in our work) and "to succeed in business" (quality is producing what the customers want and when they want it) are two reasons.

Whatever the reason, keeping track of quality control is important, and records are necessary.

We at Omahanui Native Plants have devised a system which I wish to share with you, and which may help in your recording system.

All seeds and plant material brought into the nursery are entered in a register by using the last two digits of the year collected, followed by a numeral, e.g., 94103. This registration number follows the plant throughout its cycle in the nursery on the back of each label. Our registration book has headings for "species", "date collected", and "where collected and by whom". This could be used for plants for regional genetic purity or a particularly nice form which we have chosen to bulk up.

Seed and cutting information was in the past maintained on cards with all the relevant information available at the "flip of a card". Now with the computer age, we had to devise a simple way to identify different batches of plants.

THE INVENTORY CODING SYSTEM

A maximum of 13 spaces can be used for plant codes. This includes a maximum of six letters:

3 or 4 letters for genus	CORO	*Corokia*
2 or 3 letters for species	COROBU	*Corokia buddleioides*
Or 2 letters for double cultivars	COROFC	*Corokia* 'Frosted Chocolate'

In Propagation. Seeds are registered, but do not appear in the inventory system until the pricking out stage.

Cuttings are stuck into flat trays according to the following system:

Identifying code for this group	2	Cuttings
Maximum of 6 letters for plant name	2COPRUG	Cuttings of *Coprosma rugosa*
Container code-1 letter	2COPRUG F	Cuttings in flats
Date; month-2 numerals/year 1	2COPRUG F122	Cuttings done Dec. 1992

Tubes, plugs, and pricking out trays use the same system as above but with 3 instead of 2 as prefix. Root trainers use the same system but with 5 as prefix. The following container codes are used: F = flat tray, T = tube, P = plug, H = Hillson (root trainer)

When potting, the first prefix is discarded and the pot size code is added. *Coprosma* 'Taupata Gold', in PB5, that were potted in September 1992, would have a code COPTG 5092.

Metrosideros 'Maungapiko', in 6-litre pots, potted February 1993, would have a code METMAU 6L023.

With this system we can follow the plant's progress, checking on quality and questioning:

- Was the cutting taken at the right time?
- When is the flowering time?
- When is the best time to market the batch?
- Are we giving quality at point of sale?

For Propagation. We have forms (all forms are colour coded for easy visual identification) recording:

- Seeds—collection, storage, sown (Fig.1).
- Cuttings—into trays, tubes, plugs, root trainers, pricking out (Figs. 2 and 3).

For Post Propagation. A potting sheet includes the code from propagation, registration number, number of plants, size of pot or PB, Ronstar granulated, location to be put in nursery, special requirements—if any, number potted, and the new code (Fig. 4).

As the number from propagation may be different from what was potted, a Reject Analysis form is filled in, giving us important information on why it was rejected (Fig. 5). All plants at the final stage of the nursery are recorded if not despatched or thrown out, so the computer records are kept up to date (Fig. 6). All these records are totalled at the end of each month, giving us information from each department.

New Plant Trials. These are assessed and recorded with registration number, nursery location, and the stage of the assessment, all with the same coding system. Contracted plants are registered with additional alphabet code. These have a monthly progress checksheet and are recorded as to progress, condition, nursery location, required date and number, an easy visual aid when a phone caller inquires as to the stage his/her plants have reached.

PROP/DR1/013
SEED COLLECTION & STORAGE RECORD

SPECIES	REG NO	DATE COLL	PRE–STORAGE TREATMENT	DATE STORED	PRE–SOWING TREATMENT	DATE SOWN	NO TRAYS	RESTORE

Figure 1. Seed collection and storage record.

PROP/1RPR/1292
OMAHANUI NATIVE PLANTS – Trays of cuttings

DATE _____

PLANT NAME	REG NO	NUMBER UNITS	TREATMENT	INVENTORY CODE	OFF

Figure 2. Records of cuttings into trays.

PROP/IRPR2/1292
OMAHANUI NATIVE PLANTS

TUBING CUTTINGS/PRICKING OUT/PLUGS/DIVISIONS/ROOT TRAINERS
DATE _____

PLANT	PRESENT PROP. NO	REG	CONT TYPE	QUANTITY REC	QUANTITY POT	REJECTS	REASON	INVENTORY CODE	BATCH FINISHED Y/N	OFF

Figure 3. Records of cuttings into tubes, plugs, root trainers, and pricking out.

POTTING RECORD SHEET
OMAHANUI NATIVE PLANTS

WEEK ENDING _____ BATCH ENTRY NO _____ DATE ENTERED _____

SIGNATURE _____

PLANT NAME	PROP CODE GOL SOURCE	REGSTR NO	NO FROM PROP	POT PB	RG	LOC	SPECIAL REQUIREMENTS	NO POTTED	NEW CODE

Figure 4. Potting record sheet.

PROP/PSL/0193
OMAHANUI NATIVE PLANTS

POTTING REJECT ANALYSIS

REJECT CODES – RECORD NUMBERS REJECTED FROM POTTING SHEETS

DATE	PLANT CODE	SURPLUS S	OLD O	SMALL SM	DISEASE D	SHAPE SH	ROOTS R	TOTALS	PERCENT REJECT

Figure 5. Potting reject analysis.

PROP/PSCT2/0193
OMAHANUI NATIVE PLANTS

REJECT ANALYSIS – POST PROPAGATION

REJECT CODES – RECORD NUMBERS REJECTED FROM THROW OUT SHEETS

DATE	PLANT CODE	PAST SALE PS	DISEASE D	DIED DD	REASON FOR DEATH	POOR QUALITY Q	TOTAL

Figure 6. Reject analysis: post propagation.

DATA BASE

A data base is now being prepared for all the plants we grow—a big job—but it will be a valuable aid to our production planning, quality, and marketing. The data base will contain the following information:

Plant Information. Stock Code, botanic name, common name, and description.

Primary Propagation.

Seed: Source, collection time, cleaning, storage, sow, pre-sow treatment, container, and germination.

Vegetative: Means, source, collection time, cutting treatment, and container.

Secondary Propagation. Container, trimming, spray schedule, and mix.

Potting. Time, container, mix, watering method, herbicide, spacing no.(M2), frost rating, trimming, spray schedule, top dress, time of maturity, flowering, and marketing.

With the help of all these records, we can become totally committed to quality production and keep improving our business. So, record keeping is definitely an aid to quality.